

In the Claims:

1-21. (cancelled)

22. (previously added) A hydrogel contact lens having a base material comprising copolymerized monomers modified with at least one amino acid, and copolymerized monomers modified with betaine.

23. (previously added) The hydrogel contact lens of claim 22, wherein the at least one amino acid is an amino acid occurring in the natural collagen of the cornea.

24. (previously added) The hydrogel contact lens of claim 22, wherein the at least one amino acid is chosen from the group consisting of glycine, proline, glutamine, alanine, arganine, asparagine, lysine, leucine, serine, and isoleucine.

25. (previously added) The hydrogel contact lens of claim 22, 23 or 24, wherein the monomer modified with at least one amino acid is a methacryloyl amino acid.

26. (presently amended) The hydrogel contact lens of claim 22, 23, or 24, wherein the monomer modified with at least one amino acid is copolymerized with a main chain and/or a side chain of the base material, a side chain of the base material, or both of the contact lens.

27. (previously added) The hydrogel contact lens of claim 22, 23, or 24 wherein the percentage of amino acid in the modified polymer is 0.5% to 25% by weight.

28. (previously added) The hydrogel contact lens of claim 22, 23, or 24 wherein the betaine is at least one of a sulfobetaine and a carboxybetaine chosen to form a block-free copolymer with the base material.

29. (previously added) The hydrogel contact lens of claim 28 wherein the betaine is N-(3-sulfopropyl)-N-methacrylhydroxyethyl-N,N-dimethyl-ammonium betaine (SPE).

30. (previously added) The hydrogel contact lens of claim 28, wherein the percentage of betaine in the modified polymer is 0.5% to 22% by weight.

31. (previously added) The hydrogel contact lens of claim 22, 23, or 24, wherein the base material of the contact lens includes at least one of hydroxyethyl methacrylate (HEMA), hydroxypropyl methacrylate (HPMA), vinylpyrrolidone (VP), and an acrylamide derivative.

32. (previously added) The hydrogel contact lens of claim 31 wherein the base material of the contact lens includes dimethylacrylamide.

33. (previously added) The hydrogel contact lens of claim 31, wherein the base material constitutes 53% to 99% by weight of polymer.

34. (previously added) The hydrogel contact lens of claim 22, 23, or 24, wherein the refractive index of the contact lens is 1.22 to 1.51.

35. (previously added) The hydrogel contact lens of claim 22, 23, or 24, wherein the contact lens, in a swollen state, contains more than 50% by weight of water.

36. (previously added) The hydrogel contact lens of claim 35 wherein the contact lens in the swollen state contains 55% to 60% of water.

37. (previously added) The hydrogel contact lens of claim 22, 23, or 24, wherein the lens has an oxygen permeability Dk value of $> 8 \times 10^{-11}$.

38. (previously added) A method for the preparation of a polymer material for a hydrogel contact lens comprising the steps of:
mixing at least one methacrylate monomer, at least one monomer based on an amino acid, and
at least one monomer based on betaine; and
polymerizing the mixed monomers with a starter and a cross-linking agent.

39. (previously added) The method of claim 38, wherein the starter is a free radical starter.

40. (previously added) The method of claim 39, wherein the starter is chosen from the group consisting of azo and peroxy compounds and photochemical reaction starters.

41. (previously added) The method of claim 38 or 39, wherein the cross-linking agent is added in an amount of 0.01% to 3% by weight.

42. (previously added) The method of claim 38 or 39, wherein the contact lens is polymerized individually as a cast lens with a polymerization time of less than one hour.

43. (previously added) The method of claim 42, wherein the reaction starter is added in an amount of 0.2% to 0.5% by weight.

44. (previously added) The method of claim 38 or 39, wherein the mixture of material initially is polymerized into a block-shape for approximately 1 to 3 days at a controlled temperature and the individual contact lenses are then machined out of the block material.

45. (previously added) The method of claim 44, wherein the reaction starter is added in an amount of 0.05% to 0.2% by weight.

46. (previously added) The method of claim 38 or 39, wherein up to 20% glycerin is added for the polymerization step.

47. (currently amended) The method of claim 46 55, wherein the percentage of monomers based on amino acids is 0.5% to 25% by weight, the percentage of monomers based on betaine is 0.5% to 22% by weight and the percentage of methacrylate monomers is 99% to 53% by weight.